



Materials Declaration Form

IPC Form Type *	1752 Distribute	Version	2
Sectionals *	Material Info Manufacturing Info	Subsectionals *	A-D <i>* : Required Field</i>

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2020-04-06
Company Unique ID	NL 008751171B01		
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Contact Phone *	Refer to Supplier Comment section	Contact Email *	Refer to Supplier Comment section
Authorized Representative *	Antonella Lanzafame	Representative Title	AMS MD CHAMPION
Representative Phone *	Refer to Supplier Comment section	Representative Email *	Refer to Supplier Comment section
Supplier Comment	Online Technical Support - STMicroelectronics : http://www.st.com/web/en/support/support.html		

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Legal Statement

Supplier Acceptance * true **Legal Declaration *** Standard

Legal Statement

Supplier certifies that it gathered the provided information and such information is true and correct to the best of its knowledge and belief, as of the date that Supplier completes this form. Supplier acknowledges that Company will rely on this certification in determining the compliance of its products. Company acknowledges that Supplier may have relied on information provided by others in completing this form, and that Supplier may not have independently verified such information. However, in situations where Supplier has not independently verified information provided by others, Supplier agrees that, at a minimum, its suppliers have provided certifications regarding their contributions to the part(s), and those certifications are at least as comprehensive as the certification in this paragraph. If the Company and the Supplier enter into a written agreement with respect to the identified part(s), the terms and conditions of that agreement, including any warranty rights and/or remedies provided as part of that agreement, will be the sole and exclusive source of the Supplier's liability and the Company's remedies for issues that arise regarding information the Supplier provides in this form.

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
LD39015M125R	HVWV*UP80AA5	A	ZS1A	2020-04-06
	Amount	UoM	Unit type	ST ECOPACK Grade
	17	mg	Each	ECOPACK® 2
Comment	ECOPACK® 2 is STMicroelectronics trade name for ROHS compliant device without Brominated and Chlorinated compound (900ppm) and without Antimony oxide flame retardant (in each organic material)			

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
1	260	3		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy	0	

Package Designator	Size	Nbr of instances	Shape	
dso	2.80.91.5	0	gull wing	
Comment	WV SOT 23 5L			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-March 2015	
Query	Response
1 - Product(s) meets EU RoHS requirement without any exemptions	TRUE
2 - Product(s) meets EU RoHS requirements except lead in solder and this usage may qualify under the lead in solder '7b' exemption (other selected exemptions may apply)	FALSE
3 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	FALSE
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	FALSE
Exemption Id.	Description

QueryList : ELV directive : 2000/53/EC amended 2020/363_March 2020	
Query	Response
1 - Product(s) meets EU ELV requirements without any exemptions	TRUE
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	FALSE
Exemption Id.	Description

QueryList : California Prop65 list, dated 3rd January 2020			
Query			Response
1 - The product does not contain identified substance from California Prop 65 List, no exposure to consumers is foreseen			FALSE
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen			TRUE
Substance	amount in product (mg)	Application	ppm in product
Nickel	0.14	alloy	8187

QueryList : REACH-16th January 2020				
Query				Response
1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH				TRUE
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product
2 - Product(s) does not contain REACH Substances Of Very High Concern in any Embedded article nor Homogeneous Material above the limits per the definition within REACH				TRUE
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material

QueryList : Korea Chemical Control Act_ 27 Dec 2017 update				
Query				Response
The Product does contain at least one of the substances listed in Chemical Control Act				NO
Substance	Homogeneous Material impacted	Content in Homogeneous Material (mg)	Concentration in the material(%)	Application Purpose

Material Composition Declaration :						Mfr Item Name	HVVV*UP80AAS			17007445.0	999998.0	
note : Substance present with less 0.001mg will not be declared in this document												
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die or dies	M-011 Other inorganic materials	0.334	mg	supplier	die	Silicon(Si)	7440-21-3		0.319	mg	955090	18655
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.004	mg	11976	234
				supplier	metallisation	Tungsten(W)	7440-33-7		0.003	mg	8982	175
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.001	mg	2994	58
				supplier	passivation	Silicon oxide	7631-86-9		0.007	mg	20958	409
Leadframe	M-004 Copper and its alloys	6.949	mg	supplier	alloy	Copper (Cu)	7440-50-9		6.803	mg	948418	397836
				supplier	alloy	iron (Fe)	7439-89-6		0.211	mg	29416	12339
				supplier	alloy	Phosphorus (P)	12185-10-3		0.002	mg	279	117
				supplier	alloy	Zinc (Zn)	7440-66-6		0.009	mg	1255	526
				supplier	metallization	Nickel (Ni)	7440-02-0		0.140	mg	19518	8187
				supplier	metallization	Palladium (Pd)	7440-05-3		0.007	mg	976	409
				supplier	metallization	Gold (Au)	7440-57-5		0.001	mg	139	58
Die attach	Other Organic Materials	0.069	mg	supplier	glue	Silver (Ag)	7440-22-4		0.048	mg	695652	2807
				supplier	glue	methylene diacrylate	42594-17-2		0.017	mg	246377	994
				supplier	glue	Dicyclopentenyl oxethyl methacrylate	68586-19-6		0.002	mg	28986	117
				supplier	glue	Polymer of Polybutadiene + Anhydride	Proprietary		0.002	mg	28986	117
				supplier	wire	Gold (Au)	7440-57-5		0.243	mg	1000000	14211
Bonding wire	M-011 Other inorganic materials	0.145	mg	supplier	wire	Gold (Au)	7440-57-5		0.243	mg	1000000	14211
				supplier	molding compound	Silica, vitreous	60676-86-0		8.168	mg	959586	477661
				supplier	molding compound	phenolic resin	Proprietary		0.394	mg	5710145	23041
				supplier	molding compound	epoxy resin	Proprietary		0.435	mg	6304348	25439
				supplier	molding compound	Biphenyl epoxy resin	85954-11-6		0.267	mg	31367	15614
Encapsulation	M-015 Other organic materials	8.512	mg	supplier	molding compound	carbon black	1333-86-4		0.017	mg	1997	994
				supplier	molding compound	carbon black	1333-86-4		0.017	mg	1997	994